

Must we have self-evident knowledge if we know anything?

## Introduction

In this essay, I will describe Aristotle's account of "scientific knowledge" as given in "Posterior Analytics", before discussing some of the ways in which it might be criticised and defended, in order to show that self-evident knowledge is essential before anything can be known.

## Aristotle's account of knowledge

A conventional definition of knowledge is "justified true belief" (Dancy 1985:23). Aristotle, in "Posterior Analytics", talks about how we can formulate explanations, and so his definition of "scientific knowledge" requires not only justified true belief, but also understanding: "We think we understand a thing ... whenever we think we are aware both that the explanation because of which the object is is its explanation, and it is not possible for this to be otherwise" (PoA 71b10). According to Aristotle, there are two ways in which we can acquire such knowledge. The simplest, and least controversial way, is to learn it, in which case "All teaching and all intellectual learning come about from already existing knowledge" (PoA 71a1). Learning is a process by which we combine knowledge that we already have in order to construct more elaborate or useful knowledge. In "Prior Analytics", Aristotle lays down the principles of logical deduction, or demonstration by syllogism, using which one can advance from premises to conclusion, and it is this model

which he is alluding to here: he believes that by adhering to a strict set of rules, we can derive new knowledge (conclusions) from pre-existing knowledge (premises).

If we accept this definition of “learning”, then it is obvious that it cannot be the only way that we acquire knowledge, for we must have something to start the whole process off: there must be some “starting points” of knowledge on top of which new knowledge can be built.

Aristotle believes that these starting points of knowledge (*archai*) must be “true and primitive and immediate and more familiar than and prior to and explanatory of the conclusion” (PoA 71b21). By “primitive”, Aristotle means that there is no other knowledge from which it is derived (in other words, a starting point cannot be “learned”); “prior to and explanatory of the conclusion” means that a conclusion relies on it, and “immediate and more familiar” is generally taken to mean that they are already known, or self-evident.

If these starting points are not learned, then where do they come from? One possibility is that we have them inside us to start with: our knowledge of them is innate. Plato suggests that this is the case and that we simply need to be prompted to recollect them. But this view is discounted by Aristotle. He says of the starting points “if we have them, it is absurd; for it results that we have pieces of knowledge more certain than demonstration and yet this escapes notice. But if we get them without having them earlier, how might we become familiar with them and learn them from no pre-existing knowledge” (PoA 99b26). In other words, if they were innate, it would not be possible for us to be unconscious of them.

Aristotle's explanation of this foundational knowledge is that we acquire it as a result of

the way that we perceive the world: “from perception there comes memory ... and from memory (when it occurs often in connection with the same thing), experience; ... and from experience ... a principle of skill and of understanding” (PoA 104a). Aristotle is saying that by repeated exposure to a particular type of situation, we have a capacity for generalising the memories of all these events into a new piece of knowledge (which can subsequently be combined with other knowledge in the learning process). “the mind is such as to be capable of undergoing this” (PoA 113a).

The term “*nous*” which is often translated as “intuition” is used by Aristotle to refer to the process by which this occurs. In contrast to learning, which is a deductive process that results in understanding through reasoning, we acquire foundational knowledge through an inductive process: once sufficient evidence has been observed, our minds can comprehend a general foundational truth. In contrast to Plato, who says that what we experience are shadows of pre-existing universals, Aristotle has us inferring universal concepts from the common features of a set of experiences.

According to Aristotle then, it is necessarily true that anything we know is either self-evident knowledge (*archai*) or else something derived from it: we cannot know anything unless we have self-evident knowledge.

## Discussion

Aristotle's position that without self-evident knowledge we cannot know anything seems open to challenge when we consider the way that I come to “know” things such as “there is

a Beatles record playing on the radio at the moment”. I haven't learned this knowledge by combining knowledge I already had, but does it count as “self-evident” knowledge? It doesn't seem to fit into the structure that Aristotle describes. I think that I know that killing people is wrong, but what is the source of the *archai* on which this knowledge is based?

There are various other aspects of Aristotle's account which we might want to take issue with. For example, it appears that “nous” is something more than simple inference, but it is not entirely clear how it operates: how many observations are enough? It does seem a plausible explanation for certain types of ideas; for example, we can see how it might be possible to comprehend the idea of a circle after seeing a number of circular shapes, even if none of them was a perfect circle. But when it comes to observations of the natural world (which is one of the things that Aristotle is trying to formulate a structure of knowledge for), it would seem that generalisation is a shaky way to derive foundational knowledge.

For example, assume I notice trees shedding their leaves one autumn. In subsequent years, I see the same phenomenon again, and at some point the memories of all the occasions when this has happened are synthesised into a comprehension of the general principle that “trees shed their leaves because it is autumn” (I am also assuming that there exist some other observations which demonstrate a causal link in this direction). This “self-evident” knowledge can then serve as a component for future learning, but it seems more fragile than it ought to be: if I come across an evergreen tree for example, my knowledge will need revising. At the least, what I previously conceived of as a proposition concerning “all trees” must be revised to a term such as “all deciduous trees”. And once we allow this, then it seems we have opened the door to the possibility that future observations will

eventually result in us knowing no more than “all trees that shed their leaves in autumn, shed their leaves in autumn”, which doesn't seem very useful. Unlike geometry and logic, the natural world seems fraught with irregularities.

I think that the answer to many of these criticisms lies rooted in the fact that Aristotle is talking about knowledge with understanding. When I acquire self-evident knowledge, I am not simply (or even) memorising a proposition such as “trees shed their leaves because it is autumn”. Rather, I have acquired some *archai* which involves comprehension: although what I comprehend may be articulated as “trees shed their leaves because it is autumn”, this is only a verbal attempt to state my understanding; later observations I make may lead me to alter my verbal account, but the *archai* I originally held concerning the relationship between “trees” and “leaves” remains valid.

When I “know” that the radio is playing a Beatles track, I don't have the same kind of understanding as is the case when I “know” that trees (of a certain type) shed their leaves. The experience of hearing music on the radio might serve as the raw ingredients for a future instance of *nous*, but it doesn't in itself count as knowledge in the sense which Aristotle has in mind.

It seems to me that the most fragile aspect of Aristotle's position is the trust I need to place in my senses, which I have to use to make the observations which will subsequently be used to construct *archai*. Presumably I “know” that my senses are accurate, but it is difficult to see how I can have acquired that knowledge.

## Conclusion

For the kind of knowledge which Aristotle is talking of, it is necessarily true that we must have self-evident knowledge in order to know anything. However, Aristotle's account in *Posterior Analytics* is limited in scope to a specific kind of knowledge, namely that which includes an understanding of cause. Given this limitation, the question of whether self-evident knowledge is required in order to know contingent facts, or whether moral knowledge can be self-evident, is not something that he addresses.

## REFERENCES

“PoA” : Barnes, J (1975) Aristotle's Posterior Analytics. Translated with notes by Jonathan Barnes. Oxford: Oxford University Press.

Dancy, J (1985) An Introduction to Contemporary Epistemology. Oxford: Blackwell Publishers Ltd.